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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/329,734	06/10/1999	IRVING AMES	YO999-023	8493

7590 12/07/2004

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EXAMINER	
EISEN, ALEXANDER	
ART UNIT	**PAPER NUMBER**
2674	

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/329,734	AMES, IRVING	
	Examiner	Art Unit	
	Alexander Eisen	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-11,14-17,20 and 21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-11,14-17,20 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The objection to claims 14-15 is withdrawn in view of applicant's amendment.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 6-8, 10-11, 14-15 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuhara et al. (US Patent 5,776,585).

With respect to claim 20, Fukuhara et al. teaches , in a manually guided pointing operation in a display interface between a computer and a manually moveable mouse input member positioned by a user, an improvement for positioning control (column 2, lines 12-16) of movement of said mouse input member on a mouse pad stationary surface (column 7, lines 66-67), of an addition in weight of said mouse input member (weight placed on mouse body 51, column 7, lines 5-13), whereby said weight addition operates to enhance a drag type frictional force component (frictional force becomes larger, column 6, mouse input member on said mouse pad lines 24-26), that resists said movement of said stationary surface (column 7, lines 57-58, smoothly operated with no slippage, column 10 lines 66-67).

However, Fukuhara et al. does not expressly teach addition of a 20-50% increase in weight. Note that Fukuhara et al. teaches different values of mouse weights in Table 2 (column 7, line 32). For example, the weight difference between the samples C1 and C5 is between 20-

50%, and results show that increased weight of a mouse has improved the mouse movement. It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Fukuhara et al. then add any percentage of weight to said mouse input member, (since the frictional force always increases due to said addition of weight, it is a design of choice to select a given weight increase percentage) because it would allow improved controllability, as taught by Fukuhara et al. (column 2, lines 12-14, column 7, lines 66-67).

As to claim 6, the improvement of claim 20 wherein said 20-50% weight increase is in the range of 20-50 grams. Note again it is obvious to one skilled in the art to select weight increase in any range of weight since the frictional force always increases due to said addition of weight, it is a design of choice to select a specific range of 20-50 grams, because of improved controllability as taught Fukuhara et al. (column 2, lines 12-14, column 7, lines 66-67).

As to claim 7, the improvement of claim 6, wherein said 20-50 % weight increase is in the form of a localized group of metal particles positioned within a housing of said mouse. Note again it is obvious to one skilled in the art to select a specific material of weight since the frictional force always increases due to said addition of weight, it is a design of choice to select a specific material , because of improved controllability as taught by Fukuhara et al. (column 2, lines 12-14, column 7, lines 66-67).

As to claim 8, the improvement of claim 6, wherein said 20-50% weight increase is in the form of a weight added to a housing of said mouse member . Note again it is obvious to one skilled in the art to select a specific location since the frictional force always increases due to said addition of weight to the mouse body, and it is a design of choice to select a location for

added weight , because of improved controllability as taught by Fukuhara et al. (column 2, lines 12- 14, column 7, lines 66-67).

As to claim 10, the improvement of claim 20 wherein said drag type frictional force component is the result of the addition of an increase in coefficient of friction of protrusions on the surface of said computer mouse that are adjacent to said computer mouse pad at the surface of said computer mouse pad (frictional force between mouse ball and mouse pad becomes larger and frictional force between the operation surface of the mouse body and the mouse pad (column 6, lines 30-34).

As to claim 11, the improvement of claim 20 wherein said drag type frictional force component is a result of at least one addition taken from the group of the addition of an about 20-50% said computer mouse (weight placed on mouse body 51, column 7, increase to the weight of lines 5-13), whereby said weight addition operates to enhance a drag type frictional force component (frictional force becomes larger, column 6, lines 24-26) , that resists said movement of said mouse input member on said mouse pad stationary surface (column 7, lines 57-58, smoothly operated with no slippage, column 10, lines 66-67), Fukuhara et al. teaches different values of mouse weights in Table 2 (column 7, line 32). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Fukuhara et al. then add any percentage of weight to said mouse input member, (since the frictional force always increases due to said addition of weight, it is a design of choice to select a given weight increase percentage) because it would allow improved controllability, as taught by Fukuhara et al. (column 2, lines 12-14, column 7, lines 66-67) the addition of a combination of a magnetic member positioned on the surface of said computer mouse that is adjacent to said computer

mouse pad and a ferromagnetic sheet positioned in said mousepad, and an addition of an increase in coefficient of friction between protrusions on the surface of said computer mouse that is adjacent to said computer mouse pad at the surface of said computer mouse.

As to claim 14, the improvement of claim 21 wherein said frictional force component of said mouse in turn is the result of the addition of an about 20-50% in weight increase of said mouse and said weight increase of said mouse in turn is produced by about 20-50 grams of metal particles in the housing of said mouse. Note again it is obvious to one skilled in the art to select weight increase in any weight percentage, range of weight, any material since the frictional force always increases due to said addition of weight, (since the frictional force always increases due to said addition of weight), it is a design of choice to select a given weight increase percentage, to select a specific weight increase percentage, specific range of 20-50 grams, specific material because of improved controllability as taught Fukuhara et al. (column 2, lines 12-14, column 7, lines 66-67), the addition of the combination of a magnetic member positioned on the surface of said mouse member adjacent to said surface of said mouse pad and a ferromagnetic sheet positioned in said mouse pad, and, the addition of an increase of protrusions on the surface of said mouse member that are adjacent to said mouse pad to said drag type movement resistance frictional force .

As to claim 15, the improvement of claim 21 wherein said frictional force component is the result of the addition of an about 29-50% in the weight of said mouse, and said weight increase is produced by adding to the top of the housing an element comprising one or more cloth or plastic covered metal discs totaling about 20-50 grams in weight. Note again it is obvious to one skilled in the art to select weight increase in any weight percentage, range of

weight, any material , (since the frictional force always increase due to said addition of weight), it is a design of choice to select a given weight increase percentage, to select a specific weight increase percentage, specific range of 20-50 grams, specific material because of improved controllability as taught by Fukuhara et al. (column 2, lines 12-14, column 7, lines 66-67).

As to claim 21, Fukuhara et al. teaches a positioning control enhancing increment, to said drag type resistance frictional force component that operates to enhance resistance to said relative movement of said mouse member over said surface of said mouse pad, said positioning control enhancing increment to said drag type resistance frictional force being the result of at least one of the addition of 20-50% of the weight of said mouse member (weight placed on mouse body 51, column 7, lines 5-13), whereby said weight addition operates to enhance a drag type frictional force component (frictional force becomes larger, column 6, lines 24-26) , that resists said movement of said mouse input member on said mouse pad stationary surface (column 7, lines 57-58, smoothly operated with no slippage, column 10, lines 66-67), Fukuhara et al. teaches different values of mouse weights in Table 2 (column 7, line 32). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Fukuhara et al. then add any percentage of weight to said mouse input member, (since the frictional force always increases due to said addition of weight, it is a design of choice to select a given weight increase percentage) because it would allow improved controllability, as taught by Fukuhara et al. (column 2, lines 12-14, column 7, lines 66-67).

4. Claims 9 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuhara et al. in view of Hawley (US Patent 4,628,755).

As to claim 9, the position control improvement of claim 20, Fukuhara et al. teaches weight addition (column 7, lines 5-9) and a mouse pad 1 (figure 3) but fails to expressly teach said drag type frictional force component is the result of the addition of a combination of a magnetic member. Hawley teaches weight addition to a mouse as a pair of spaced ring magnets shown in figure 2.

It would have been obvious to a person of ordinary skill in the art to utilize the apparatus of Fukuhara et al. , then substitute the weight addition to a mouse as magnets (since force of friction still increases due to addition of magnets), as taught by Hawley because it would result in thrust augmentation, augmented force in contact area , as taught by Hawley column 6, lines 34-35, column 11, lines 54-55) and improved controllability of the mouse. This corresponds to the claimed magnetic member positioned on the surface of said computer mouse that is adjacent to said computer mouse pad and a ferromagnetic sheet positioned in said mouse pad.

As to claim 16, the improvement of claim 21, wherein said frictional force component is the result of the addition of a combination of a magnetic member positioned on the surface of said mouse that is adjacent to said mouse pad and a ferromagnetic sheet positioned in said mouse pad . Fukuhara et al. teaches weight addition (column 7, lines 5-9) and a mouse pad l (figure 3) but fails to expressly teach said drag type frictional force component is the result of the addition of a combination of a magnetic member. Hawley teaches weight addition to a mouse as a pair of spaced ring magnets shown in figure 2.

It would have been obvious to a person of ordinary skill in the art to utilize the apparatus of Fukuhara et al. , then substitute the weight addition to a mouse as magnets (since force of

action still increases due to addition of magnets), as taught by Hawley because it would result in thrust augmentation, augmented force 'in contact area , as taught by Hawley column 6, lines 34-35, column 11, lines 54-55) and improved controllability of the mouse.

As to claim 17, the improvement of claim 16, wherein said magnetic member is adjustably positioned (Hawley, relocation of magnets 40/41, column 6, lines 58-59) and said mouse is positioned on rollers away from said mouse pad (Fukuhara et al. , mouse pad 1 was rotated with mouse body 51 and weight fixed to the jig 39, column 7, lines 10-11).

Response to Arguments

5. Applicant's arguments filed on 04 August 2003 have been fully considered but they are not persuasive. Applicant argues that the Fukuhara et al. reference 5,776,585 "indicates that there was an awareness in the art that there is a need for control in the movement of the mouse by adding weight and the technology advanced by Fukuhara is the addition of substantial weight in relation to the mouse body (300g on a 38g mouse body -Col 7 lines 6-7). Applicants teach that much less weight is better. Applicants invention applies a small range of weight in relation to the mouse body (20 - 50 % of a 100g mouse body) and achieves the benefits of the invention" and that the 20 - 50 % weight range is a distinguishing limitation over the art. Examiner respectfully disagrees. The alleged reference teaches addition of a weight of 300g only to emulate the weight of user's hand and not to the mouse weight itself. As it can be clearly seen from the referred table 2, different weights of a mouse tested were in a range between 45.5g and 105.3g. It is well within the ranged claimed by the independent claims 20 and 21. For instance, it would be obvious to one of ordinary skill in the art at the time when the invention was made that mouse weight in a sample C5 can be easily achieved by adding (62.9-45.5)g = 17.4g of weight to the mouse in a

sample C1, which will incur the increase in mouse weight of 17.4/45.5 = 0.38, i.e. 38%, which is within the range 20-50 as claimed. The rejection is maintained.

Conclusion

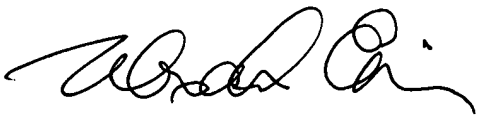
6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Eisen whose telephone number is (703) 306-2988. The examiner can normally be reached on M-F (8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander Eisen
Primary Examiner
Art Unit 2674

2 December 2004